

Ref: 02356-05-001-32001

February 28, 2005

Ms. Andrea Jensen Santa Rosa Fire Department 955 Sonoma Avenue Santa Rosa, CA 95404

Re: Remedial Action Plan Addendum #1 for Additional Soil Removal at the Former Empire Auto, 6220 Montecito Boulevard, Santa Rosa, California, NCRWQCB File #1TSR208

Dear Ms. Jensen:

On behalf of our client, Redwood Enterprises, Winzler & Kelly Consulting Engineers (Winzler & Kelly) presents this Remedial Action Plan Addendum (RAP Addendum) to our original September 2004 *Remedial Action Plan* (RAP) for additional soil removal at the Former Empire Auto (Figures 1 and 2). The purpose of this RAP Addendum is to address additional soil removal in the area of the former dispenser areas, where soil contamination was identified during the October 2004 fuel product line removal investigation conducted by Winzler & Kelly. Winzler & Kelly performed the product line removal work in accordance with our March 2004 *Corrective Action Plan* (CAP) and September 2004 RAP, which were approved in a December 2, 2004 letter (Appendix A) by the North Coast Regional Water Quality Board (NCRWQCB).

Winzler & Kelly's March 2004 CAP recommended the over-excavation of petroleum hydrocarbon impacted soil in the vicinity of monitoring well M-4 and removal of the existing fuel product lines. The removal of the fuel product lines was completed first in order to better assess soil conditions in this area of the site that had not been previously identified. Based on the soil contaminant concentrations associated with the fuel product lines, additional soil needs to be excavated at the site. Figure 2 illustrates the areas to be excavated; the area south of the former underground storage tank pit (detailed in Winzler & Kelly's September 2004 RAP); and the area associated with the former dispenser island investigation (newly proposed). The CAP/RAP also included an option to operate a portable High-Vacuum Dual Phase Extraction (HVDPE) on a limited basis to further remove residual groundwater contamination after the completion of soil excavation.

COMPLETED REMEDIAL ACTION WORK

Results of the fuel product line removal investigation are documented in Winzler & Kelly's December 8, 2004 Report of Fuel Product Piping Removal, indicated elevated concentrations of petroleum hydrocarbons are present in and around the northern product line trench area (Figure 3) and directly beneath the former fuel dispenser islands. Residual soil contamination is primarily concentrated beneath and in the vicinity of Dispenser Area 2 (Figure 3). Low levels of contaminants were observed beneath Dispenser Area 1. Table 1 summarizes the soil analytical results from the October 2004 investigation.



On January 28, 2005, Winzler & Kelly's field engineer observed Clear Heart Drilling of Santa Rosa, California abandon monitoring well M-4 by over drilling the casing and sand pack to approximately 15 feet below ground surface (bgs). Upon removal of the casing, seal, and sand pack, the borehole was tremie-grouted through the hollow-stem augers in 5-foot lifts, using a bentonite/cement slurry mixture. The well was destroyed to facilitate soil excavation in this area.

CAP Status (Groundwater Treatment Component)

In a November 30, 2004 conversation with the NCRWQCB, Mr. Jim Tischler recommended evaluating in-situ ozone treatment as a cost-effective remedial alternative for post-groundwater remediation at the site, due to the unknown extent of soil and groundwater contamination beneath and in the vicinity of the former dispenser islands and the high cost of a HVDPE system. In a December 2, 2004 letter (Appendix A), the NCRWQCB approved the re-evaluation of the groundwater treatment component of the CAP. Data obtained from the soil excavation investigation will be used to prepare a CAP Addendum for feasibility of in-situ ozone treatment. The CAP Addendum will include recommendations for a final groundwater remediation component and include well design and system layout.

Proposed Work Scope

This RAP Addendum includes procedures to be followed for the removal of shallow impacted soil and groundwater (if encountered) in the area of the former dispenser islands. This RAP Addendum also includes the installation of a replacement well M-4A and new well M-9 located outside the footprint of the proposed fuel product line excavation (Figure 2). This RAP Addendum is to be used in conjunction with the originally approved September 2004 RAP for removal of contaminated soil and includes the following tasks:

- Prepare and submit a City of Santa Rosa Building Department permit (completed);
- Complete the soil remediation notification to the Bay Area Air Quality Management District (Appendix B);
- Prepare and submit a City of Santa Rosa Fire Department (SRFD) soil remediation permit (completed);
- Over-excavate hydrocarbon impacted soil in the area of the former dispenser islands;
- Collect confirmation soil samples from the excavation to confirm source removal;
- Submit soil samples for the analysis of total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and xylenes (BTEX), and oxygenates and lead scavengers by EPA Methods 8015M and 8260B;
- Observe the backfill and compaction of excavation areas;
- Install replacement monitoring well M-4A and new well M-9 (in the area of the former dispenser); and
- Prepare a summary report of field activities.



Below is a summary of each proposed task item.

Task 1 - Permitting and Notification

On January 19, 2005, a backfill and compaction permit was submitted to the City of Santa Rosa Building Department. On February 15, 2005, Winzler & Kelly submitted a soil excavation permit to the SRFD. The NCRWQCB and the SRFD will be notified of soil excavation activities approximately 5 days prior to the commencement of field work.

Task 2 - Excavation of Impacted Soil Around Fuel Dispenser Island Area

Residual soil contamination will be over-excavated in the area surrounding the former dispenser areas as shown on Figure 2. Based on contaminant concentrations of soil samples collected at 3 feet bgs during the October 2004 investigation (Table 1), the proposed excavation will extend to first encountered groundwater at a depth of approximately 5 feet bgs. To confirm source removal, soil samples will be collected from the proposed excavation sidewalls just above groundwater or saturated soils. Soil cleanup requirements for this scope of work, will be based on the SRFD cleanup criteria for petroleum hydrocarbon impacted soil at <1.0 mg/Kg for TPH-G or until the excavation has reached its feasible limits of excavation. Because the extent of contamination is not known, if obvious soil contamination is encountered to the northwest or the southeast, the excavation lateral limits will be extended to the feasible limits and terminated at the northwest sidewalk property boundary and southwest building edge (Figure 2). Figure 3 illustrates the approximate area to be excavated. We anticipate a volume of 130 cubic yards will be excavated.

Task 3 - Confirmation Soil Sampling

Once the planned limits of excavation have been completed, confirmation sidewall samples will be collected at approximately two samples per 20 linear feet of sidewall (or where contamination is suspected). Any additional sampling as directed by the SRFD will also be conducted. Soil samples will be obtained from the sidewalls with the use of the backhoe or excavator bucket. Samples will be collected using Encore® EPA 5035 sampling techniques and equipment will be used for collection of the soil samples. Soil sampling from the excavation will be in accordance with Winzler & Kelly's sampling procedures presented in their September 2004 RAP.

The soil samples will be transported to a California state-certified analytical laboratory under chain-of-custody documentation. Soil samples will be analyzed on a 48-hour turnaround basis for TPH-G and BTEX by EPA Method 8015M. Excavation and soil sampling will cease once analysis shows non-detect (<1.0 mg/Kg) or limited by permanent structures, sidewalks, buildings, etc. The verification samples will also be analyzed for oxygenates and lead scavengers by EPA Method 8260B.



Task 4 - Groundwater Extraction and Treatment (if necessary)

If a significant volume of groundwater is encountered during soil excavation, Winzler & Kelly personnel will coordinate with the SRFD to pump the water from the excavation and contain it in a 10,000-gallon Baker tank. Grab groundwater samples will be collected as required by the City of Santa Rosa for discharge approval. Because a fixed remediation system will be installed to treat the remaining residual groundwater contamination, significant removal of contaminated groundwater may not be warranted during excavation activities.

Task 5 - Backfill and Compaction

Once the laboratory results indicate the excavation of impacted soils is complete (including 8260B analysis) and Winzler & Kelly receives approval from the SRFD, the excavations will be backfilled. Clean imported fill (Class II fill material) will be placed and compacted in approximate 1-foot lifts to 95% relative compaction to final grade. Excavated soil deemed clean, may also be used as backfill material, with the approval from the SRFD. Compaction testing, by a third party contractor, will be performed during backfilling of the excavation and testing results will be included in the final report. Due to the traffic safety and pedestrian issues during the project, the soil excavation in the area of well M-4 will be completed first.

Task 6 - Stockpile Sampling, Management, and Disposal

Excavated soil will be stockpiled on plastic sheeting and will be sampled, characterized, and then covered with plastic sheeting pending disposal/recycling facility acceptance. Winzler & Kelly will complete disposal/recycling facility acceptance applications, prepare manifests, coordinate with the transportation contractor and the disposal/recycling facility to properly dispose of soil, and obtain the proper disposal documentation.

Task 7 - Monitoring Well Installation

Upon completion of soil excavation activities, replacement monitoring well, designated as M-4A, will be installed downgradient and at the edge of the excavation footprint shown on Figure 2. A second well designated as M-9 will be installed upgradient and at the edge of the dispenser island excavation footprint (Figure 2). Well locations may vary based on the final dimensions of the excavation areas. Drilling will be performed using a hollow-stem auger drill rig. The borings will be advanced to a depth of approximately 15 to 20 feet bgs. The wells will be screened within a sand and gravel unit previously encountered beneath the site that extends to a maximum depth of 20 feet bgs. Lonestar #2/12 Monterey sand or equivalent will be used with a 0.010-slot screen. If the saturated soil consists of coarser material, a 0.020-inch slot with Lonestar #3 sand (or equivalent) will be used.



The new wells will be developed no sooner than 48 hours after construction to ensure that the grout seal has completely set. The well will be sampled with the other wells as part of the next quarterly groundwater monitoring event. After the installation, the top of casing for the monitoring wells will be surveyed. The location will be surveyed to within 1.0 ft horizontally and 0.01 ft vertically, relative to mean sea level, from an established benchmark. The rim elevation of the traffic box of the well will also be measured as a point of reference.

After the installation of the monitoring wells, the two new wells will be surveyed to within 1.0 ft horizontally and 0.01 ft vertically, relative to mean sea level, from an established benchmark. Winzler & Kelly will use the survey data to develop and submit the required location and elevation measurement files for the new wells to the State GeoTracker database (GeoTracker). A copy of the boring logs for each monitoring well will also be submitted to GeoTracker.

All water level, analytical data, and monitoring reports will be submitted to GeoTracker following each sampling event. In addition, an electronic image of the updated site map showing the locations of the new wells will be submitted to GeoTracker. Upload verifications will be provided as an appendix in each quarterly monitoring report.

Task 9 - Remedial Action Soil Excavation Report

After project completion, a report will be prepared to summarize the soil excavation procedures, soil sampling, and site observations. The report will include site maps with confirmation soil sampling locations, analytical data, and laboratory reports. Results from this scope of work will be used to verify a proposed remedial document, or if a more applicable approach is warranted.

Anticipated Project Schedule

- February 2005 Submit RAP Addendum to SRFD and NCRWQCB;
- March 2005 Receive RAP Addendum Approval;
- March 2005 Schedule Soil Excavation Activities;
- April 2005 Perform Soil Excavation Activities;
- 30-45 days after field activities Install new wells M-4A and M-9;
- 60 days after well installation Prepare summary report; and
- 90 days after field activities Submit CAP Addendum

If you have any question regarding this RAP Addendum, please call Brian L. Wingard, Project Manager, at (707) 523-1010.

NONAL GEO

KENT O'BRIEN No. 2132 CERTIFIED

ENGINEERING

Sincerely,

WINZLER & KELLY

Brian L. Wingard

Staff Environmental Geologist

Kent O'Brien RG, CEG Senior Project Geologist

aa

Attachments

Figures:

Figure 1 – Location Map

Figure 2 – Proposed Monitoring Well & Location Map

Figure 3 - Fuel Dispenser Island

Table:

Table 1 - Soil Analytical Results (October 2004 Fuel Product Liner Removal)

Appendices:

Appendix A - NCRWQCB December 2, 2004 letter

Appendix B - BAAQMD Notification Permit

c: Mr. Rick Thomas, Redwood Enterprises, 6240 Montecito Boulevard, Santa Rosa, CA 95409 Mr. Jim Tischler, North Coast Regional Water Quality Control Board, 5550 Skylane Boulevard, Suite A, Santa Rosa, CA 95403



J:\02\235603\visio\35603f01.vsd Date:12/11/04

WINZLER SKELLY

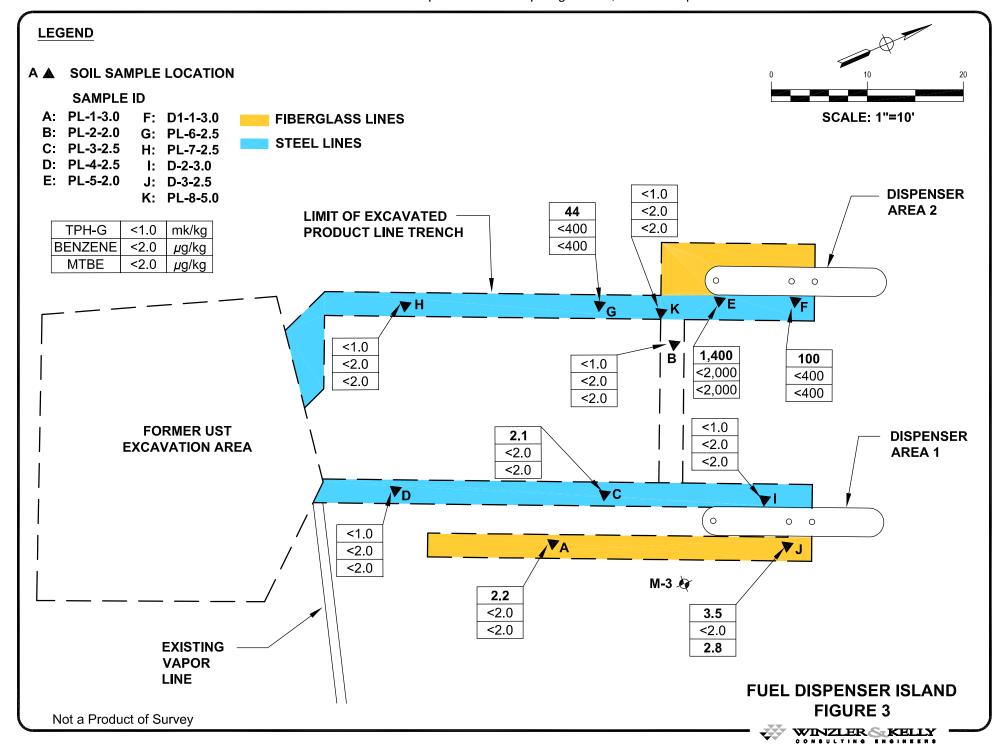




Table 1. Soil Analytical Results

Former Empire Automotive 6220 Montecito Boulevard, Santa Rosa, CA

Sample ID	Date Sampled	Sample Analysis	трн-G	TPH-D	В	Т	E	X	EDB	EDC	TBA	MTBE	DIPE	ЕТВЕ	TAME
SOIL			mg	/kg	ug/kg										
PL-1-3.0	10/22/2004	8015M/8260B	2.2	NA	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	< 2.0
PL-2-2.0	10/22/2004	8015M/8260B	<1.0	< 5.0	<2.0	<2.0	3.0	2.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	< 2.0
PL-3-2.5	10/22/2004	8015M/8260B	2.1	< 5.0	<2.0	2.2	3.3	21.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	< 2.0
PL-4-2.5	10/22/2004	8015M/8260B	<1.0	NA	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	<2.0
PL-5-2.0	10/22/2004	8015M/8260B	1,400	NA	<2,000 a	<2,000	<2,000	<2,000	<2,000	<2,000	<50,000	<2,000	<2,000	<2,000	<2,000
PL-6-2.5	10/22/2004	8015M/8260B	44	NA	<400 a	<400	430	<400	<400	<400	<10,000	<400	<400	< 400	<400
PL-7-2.5	10/22/2004	8015M/8260B	<1.0	NA	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	< 2.0
PL-8-5.0	10/22/2004	8015M/8260B	<1.0	NA	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	<2.0
D-1-3.0	10/22/2004	8015M/8260B	100	NA	<400 a	<400	<400	<400	<400	<400	<10,000	<400	<400	<400	<400
D-2-3.0	10/22/2004	8015M/8260B	<1.0	< 5.0	<2.0	2.8	<2.0	2.0	<2.0	<2.0	< 50	<2.0	< 2.0	< 2.0	< 2.0
D-3-2.5	10/22/2004	8015M/8260B	3.5	NA	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.0	83	2.8	< 2.0	< 2.0	< 2.0
			•		•		•		•	•			•		
ESLs (Shallow Soils <9.84 feet) 400				0.00038	0.0093	0.013	0.0015	0.000021	0.000069	0.11	0.0056				
PRG's															

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline TPH-D = Total petroleum hydrocarbons as diesel

B = Benzene

T = Toluene

E = Ethyl benzene

X = Total xylenes

EDB = 1,2-Dibromoethane

EDC = 1.2-Dichloroethane

TBA = Tert-butyl alcohol

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = Tert-amyl methyl ether

ESLs = Environmental Screening Levels for commercial land where groundwater is not a current or potential

source of drinking water.

Notes:

NA = Not analyzed for this constituent

^a = A dilution was necessary due to the presence of significant amounts of non-targeted hydrocarbons. This resulted in an increase in the reported detection limit.

--- = Regulatory standards not established





California Regional Water Quality Control Board North Coast Region

William R. Massey, Chairman



MINZLER & KELLY

\$1904 ROSA

http://www.swrcb.ca.gov/rwqcb1/ 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403 Phone 1-877-721-9203 Office (707) 576-2220 FAX (707) 523-0135

December 2, 2004

Mr. Ernest R. Thomas Redwood Enterprises 6240 Montecito Blvd. Santa Rosa, CA 95409

Dear Mr. Thomas:

Subject:

Status of Corrective Action Plan Implementation

File:

Montecito Auto Center, 6220 Montecito Blvd., Santa Rosa; Case No. 1TSR061

The general public and interested parties have been notified of the pending approval for the March 2004 Corrective Action Plan (CAP) prepared for the subject site. The required period for public review and comment has been completed, and no objections or additional information about the project have been submitted. Accordingly, Regional Water Board staff now authorizes implementation of the March 2004 CAP submitted for the site.

On November 30, 2004, Winzler & Kelly Consulting Engineers (W&K) communicated to Regional Water Board staff that W&K has re-evaluated costs for the Dual-Phase Extraction (DPE) proposed in the CAP. W&K now believes that ozone injection may be a more cost-effective remedial alternative than DPE and has proposed to evaluate the costs of implementing the ozone injection technology at the site. W&K has proposed to submit a CAP addendum assessing the feasibility of in-situ ozone remediation before January 15, 2005. Regional Water Board staff concurs with deferring implementation of the groundwater remediation component of the CAP until a feasibility study for ozone injection has been completed.

If Regional Water Board staff concurs with a proposal to select in-situ ozone injection for groundwater remediation, an additional period for public review and comment would be provided prior to implementing the ozone injections. The soil removal activities that were proposed for the site in the March 2004 CAP will be implemented in January 2005 as previously proposed and noticed to the public.

Please contact me at (707) 576-2469 if you have any questions or comments.

Sincerely,

Jim Tischler

Environmental Scientist

JAT:clh\120204_JAT_Montecito08.let

im Tischler

cc: Mr. John Anderson, Sonoma County Environmental Health Department

California Environmental Protection Agency

Mr. Brian Wingard, Winzler & Kelly, 495 Tesconi Circle, Santa Rosa, CA 95401-4696 Ms. Andrea Jensen, Santa Rosa Fire Department, 955 Sonoma Avenue, Santa Rosa, CA 95404 Underground Storage Tank Cleanup Fund





Inv Req Date:

COMPLIANCE & ENFORCEMENT DIVISION

Notification Form

Regulation 8 Rule 40

REMOVAL C)F UNDERGROU	ND STORAGE TANKS	OR TREATMENT OF CO	TAMINATED:	SOIL				
		SITE OF ACT	IVITY						
Site Address: 6220 Monte	ecito Blvd.		City & Zip: Santa Ros		Site#:				
Specific Location of Proj	Specific Location of Project within Address: Corner of Montecito Blvd. and Benicia Dr.								
Owner/Operator: Redwoo	od Enterprise	S							
Check any that apply (40 Tank Removal or Repla	icement (401)	D	☑ Contaminated Soil Ex	xcavation and	Removal (402)				
Aeration of Soil < 50 ppmw organic content, but does not meet Section 118 Exemption (403) Section 114 Exempt; Date Pipeline Leak Started:									
					, ,				
	Section 115 Exempt; Date Contamination Unrelated to UST Activities Discovered :(405) If only Tank Removal is selected, attach results showing soil is not contaminated								
II Omy Tank Kemov	47 13 30700100	, attacii i coanto on	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	C	CONTRACTOR IN	FORMATION						
Name: John's Excavatin	g	Site Contac	t: Carolyn Poulson	Phone	e: 707-578-1184				
Address: 1128 Halyard [)r. Santa Ros	a, CA 95401							
Liquid and sludge rem Vapor removal (310.3) * Emission controls re	shing (310.1) _ noval (310.2) _ [Checkequired for vapo	COne] ☐ Water E	ze of Tank(s):	por Freeing* 250 gallons.					
CONT	AMINATED S	SOIL EXCAVATION	N AND REMOVAL	(Section 40)2)				
Scheduled Start Date:			eduled Completion D						
	cubic yards and analyze so rol (304-306) Covered	Orga oil: Encore® EPA 50 apor Suppressant (Lis oil Removed	nic Content & Type: T 035, EPA Methods 8015 t Material Used):	otal Petroleu					
Loaded Hucks Covere	<u> </u>	169							
AERA You must submit a Permit			RGANIC CONTENT sis (Forms will be sent to		03)				
					y 1000 rossy po 1000 py. (550 7540)				
		FOR BAAQME		net visit sitti ili ili ili ili ili ili ili ili ili	By:				
Fax/PM Date:	By:	Disp to 1#:	Area:	Date:	By:				
Inv Reg Date:	By:	Fwd to Supv.		שום.					

OTHER PUBLIC AGENCY CONTACTED	(Fire District, Hazardous M. Jerials, City or County)?
Agency Name: City of Santa Rosa Fire Department	Contact Name: Fire Prevention Bureau
Address: 955 Sonoma Ave. Santa Rosa, CA 95404	Phone: 707-543-3500

	EMERGENCY REMOVAL ORDER APPLICABLE?
Agency Name:	Contact Name:
Address:	Phone:

H:\Pub_data\Janet\Reg 8-40\forms\notifdraft3.doc

GENERAL INFORMATION

- This notification form shall be used to notify the BAAQMD of any projects subject to the reporting requirements in Regulation 8, Rule 40, Sections 401 through 405. Notifications may be faxed to (415) 928-0338 or mailed to the address listed at the bottom of this form.
- An invoice for payment will be sent to the person listed under "Contractor Information" as the person responsible, unless the project is exempt from fee payment (see next item).
- See "Frequently Asked Questions" (FAQ) for definition of projects, change procedures, permit requirements, emergency conditions, project exemptions, and fee exemptions. For any questions not answered in the FAQ, contact the Compliance Assistance Counselor at (415) 749-4999.

INSTRUCTIONS

- SITE OF ACTIVITY: Give the site street address and indicate if it has any existing BAAQMD site number, for either a plant or GDF. Identify the specific project location if the site contains more than one building. Indicate all applicable activity types by checking appropriate boxes. For reporting requirements under Sections 401 through 403, additional information is required, as below.
- CONTRACTOR INFORMATION: Identify the contractor that is responsible for performing the work at the site location listed. This contractor is also responsible for payment of the applicable notification fee, if the project is not exempt.
- SECTION 401 TANK REMOVAL/REPLACEMENT: All soils disturbed and/or excavated as part of the tank removal shall be subject to the requirements of Sections 304 through 306, unless the soil has been determined not to be contaminated by measurement of organic content using the procedures in Sections 601 and 602. Complete requirements for Section 402 or submit sample results showing that the soil is not contaminated.
- SECTION 402 CONTAMINATED SOIL EXCAVATION AND REMOVAL:
 - Be as accurate as possible for the Scheduled Start and Completion Dates. Specific requirements apply for excavation projects triggered within either 45 or 90 days (Reg. 8-40-306.4) and Authority to Construct requirements for projects lasting longer than three months (Reg. 2-1-128.16).
 - If a vapor suppressant is used, attach a product data sheet or MSDS.
 - If Method of Site Closure used is Onsite Treatment, describe specific method, (e.g., bioremediation, vapor extraction, air sparging, thermal desorption, etc.).
 - If Onsite Treatment is used, indicate whether an Authority to Construct was obtained by providing the Application No. or attach copy of BAAQMD Certification of Exemption.
- SECTION 403 AERATION OF SOIL < 50 PPMW ORGANIC CONTENT: Section 301 exempts
 from control the aeration of soil containing less than 50 ppmw of organic compounds, but Section 403 still
 requires reporting of ANY soil aeration. If such a project does not meet the exemption criteria of Section 118,
 then a Permit Application and Risk Screening Analysis must be submitted.
- EMERGENCY REMOVAL INFORMATION (IF APPLICABLE): The rule defines an emergency tank removal or excavation of contaminated soil as "carried out pursuant to an order of a state or local government agency issued because the contaminated soil poses an imminent threat to public health and safety." If the project(s) meet this definition, then identify the agency that issued the order. Under Section 402 requirements, on line two, identify the purpose as indicated in the order.